From: LEE, LILY [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

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Sent: 10/27/2017 6:30:27 AM

To: Barnett, Felicia [Barnett.Felicia@epa.gov]; Cook, Anna-Marie [Cook.Anna-Marie@epa.gov]

Subject: FYI - EPA draft review of Parcel G Trench Units in draft Radiological Data Evaluation Findings Report

Attachments: Parcel G CDPH EPA Review Building sites -10-20-2017 to Navy .xlsx; Parcel G EPA Supplemental Statistical

Analyses.pdf; Draft EPA comments on draft Rad Data Eval Parcel G V1 10-20-2017 - cover note.doc; Draft EPA comments on draft Rad Data Eval Parcel G V1 10-20-2017 Narrative.docx; Parcel G NFA TU067_to_TU204 EPA

Review 10-20-2017 to Navy.xlsx; Parcel G Regulators Review Summary Trench Fill Bldg 10-20-2017.xlsx

Dear Felicia and Anna-Marie,

I wanted to keep you in the loop. Both statisticians Anita and Donna have been invaluable partners in our team. I am grateful for their expertise.

Last week, EPA and state DTSC sent comments on Parcel G of the Navy's radiological data evaluation of Tetra Tech EC, Inc., former work at Hunters Point Naval Shipyard. Parcel G is the next one the City wants to redevelop. It has a known history of previous radiological contamination. Much of the work in this parcel occurred during years that former workers alleged wrongdoing. The Navy reviewed available data, found evidence of potential falsification and proposed resampling in nearly half of the trench, building site, and fill units. Regulatory agencies reviewed the draft findings and found more areas of concern and recommended most of the remaining half for resampling in addition for a total of 97% of trench, fill, and building site units recommended for resampling (see attached summary spreadsheet). We also sent the Navy and City the attached detailed spreadsheet of EPA's analysis and justification for technical recommendations.

We will continue technical review of evidence from other Parcels. They each have unique circumstances and may have greater or lesser degree of associated concern.

Attached is the narrative of EPA comments. Below is an excerpt.

"Together, the EPA and the Navy found enough concerns to recommend resampling in 94% of trench units in Parcel G. The data analyzed demonstrate a widespread pattern of practices that appeared to show potential deliberate falsification, potential failure to perform the work required to ensure ROD requirements were met, or both. The data revealed not only potential purposeful falsification and fraud in terms of sample and/or data manipulation, they also reveal the potential failure to conduct adequate scans, a lack of proper chain of custody for ensuring samples were not tampered with, extensive data quality issues (including off-site laboratory data) and general mis-management of the entire characterization and cleanup project."

"These observations in the record call into question the performance of Tetra Tech EC, Inc., across all of Parcel G. Many of the same personnel in Tetra Tech EC, Inc., worked in a similar time period at nearby locations in Parcel G. The pervasiveness and magnitude of the documented wrongdoing makes it difficult to conclude that similar falsification did not also occur at the four out of 63 trench units where evidence of wrongdoing was not as apparent. Therefore, none of the data generated while Tetra Tech EC, Inc., was involved with the cleanup activities at Parcel G, can be deemed to be definitive or defensible. Therefore, the extent of the problems found in Tetra Tech EC, Inc., work and the history of contamination confirmed in Parcel G (see examples listed in the cover letter) make comprehensive rework for characterization, and potential additional cleanup, necessary to demonstrate in the record that ROD requirements have been met.

Here are some examples of concerns:

- In nearly a third of all 63 Parcel G trench units, post remediation gamma scans indicated a need for biased samples to be collected, but they were not.
- Out of the 43 trench units that the Navy designated for "no further action:"
 - Over half had inconsistencies between gamma scan and static data and over one-third had other types of inconsistencies (e.g. on-site and off-site results differ by more than 10X, plots showed signs that multiple populations likely in the data set, etc.)
 - In a third, the narrow range of gamma static data indicates measurements were not collected from different locations as required
 - In six, some data were missing so some evaluations could not be done.
 - In a few trench units, biased sample results appeared lower than other data sets, which is the opposite of what we would expect. And in a few more, the Navy's report described a finding of potential falsification in one aspect of the work but still did not flag for resampling.
 - Many other concerns were found through data evaluation, and most trench units showed red flags of multiple types.

Forwarded:

Dear Pat,

Thank you for providing for review the *Draft Radiological Data Evaluation Findings Report for Parcels B and G Soil* ("Report"), Former Hunter's Point Naval Shipyard, September 2017. I appreciate it represents a great deal of hard work in a short time by a credentialed team. The Navy has requested an expedited review of the Report. In response to the Navy's request for updates on review progress in stages, EPA is providing the following interim draft review comments in advance of a full review:

- 1. Cover Letter
- 2. Draft narrative comments on the Report's main text and describing EPA's reviews of the Navy's draft forms and data.
- 3. Spreadsheet for Parcel G Trench Unit giving detailed EPA review findings. The second tab shows an overall summary of scores.
- 4. Spreadsheet for Parcel G Building site survey units giving detailed CDPH and EPA review findings
- 5. Supplemental statistical analyses for individual trench units

Please contact me at 415-947-4187 or lee lily@epa.gov if you would like to discuss any of these interim draft comments.

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For information on Superfund in general: www.epa.gov/region9/superfund

For information on Hunters Point Naval Shipyard: www.epa.gov/superfund/hunterspoint